AMENDMENTS TO THE CLAIMS:

Please amend Claims 17, 23 through 25, 27, 33 through 35, 37 through 39, 47, 53 through 55, 57, and 58 to read as follows.

1. (Cancelled)

2. (Withdrawn) A method comprising prioritizing transport level packets for transmission wherein at least one of the following conditions is satisfied:

(a) transport level packets containing real time traffic are assigned a higher priority for transmission than transport level packets containing broadcast traffic;

(b) transport level packets containing broadcast traffic are assigned a higher priority for transmission than transport level packets containing interactive TCP traffic;

(c) transport level packets containing interactive TCP traffic are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic; and

(d) transport level packets that are UDP packets are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic.

3. (Withdrawn) A method according to Claim 2, wherein condition (a) is satisfied.

4. (Withdrawn) A method according to Claim 2, wherein condition (b) is satisfied.

5. (Withdrawn) A method according to Claim 2, wherein condition (c) is satisfied.

6. (Withdrawn) A method according to Claim 2, wherein condition (d) is satisfied.

7. (Withdrawn) A method according to Claim 2, wherein any two of conditions (a) through (d) are satisfied.

8. (Withdrawn) A method according to Claim 2, wherein all of conditions (a) through (d) are satisfied.

9. (Withdrawn) An apparatus comprising:

a packet prioritizer that is configured to prioritize transport level packets for transmission wherein at least one of the following conditions is satisfied:

(a) transport level packets containing real time traffic are assigned a higher priority for transmission than transport level packets containing broadcast traffic;

(b) transport level packets containing broadcast traffic are assigned a higher priority for transmission than transport level packets containing interactive TCP traffic;

(c) transport level packets containing interactive TCP traffic are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic; and

(d) transport level packets that are UDP packets are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic.

10. (Withdrawn) An apparatus according to Claim 9, wherein condition (a) is satisfied.

11. (Withdrawn) An apparatus according to Claim 9, wherein condition (b) is satisfied.

12. (Withdrawn) An apparatus according to Claim 9, wherein condition (c) is satisfied.

13. (Withdrawn) An apparatus according to Claim 9, wherein condition (d) is satisfied.

14. (Withdrawn) An apparatus according to Claim 9, wherein any two of conditions (a) through (d) are satisfied.

15. (Withdrawn) An apparatus according to Claim 9, wherein all of conditions (a) through (d) are satisfied.

16. (Withdrawn) Computer executable code that is configured to effect a method comprising a step of prioritizing transport level packets for transmission so that UDP packets are given a higher priority for transmission than TCP packets.

17. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

a packet receiving unit that is configured to receive a packet addressed at the IP level from the destination apparatus to the source apparatus; and

a transport level window size controlling unit that is configured to control the transport level window size of the packet received by said packet receiving unit in accordance with bandwidth usage associated with the destination apparatus,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and wherein the packet received by said packet receiving unit of said gateway has, as its source IP address, the IP address of the destination apparatus, and has, as its destination IP address, the IP address of the source apparatus.

18. (Previously Presented) A gateway according to Claim 17, wherein the bandwidth usage is measured as an amount of data sent to the destination apparatus per unit of time.

19. (Previously Presented) A gateway according to Claim 18, wherein the unit of time is a 24 hour period.

20. (Previously Presented) A gateway according to Claim 18, wherein the unit of time is a plurality of 24 hour periods.

21. (Previously Presented) A gateway according to Claim 17, wherein the bandwidth usage is expressed as an average throughput.

22. (Previously Presented) A gateway according to Claim 17, wherein the bandwidth usage is determined using a leaky bucket analysis.

23. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

a throughput controlling unit that is configured to (a) determine the number of TCP connections that are open and (b) control throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with the determination of ~~a~~ the number of TCP connections that are open,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses.

24. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

a throughput controlling unit that is configured to control throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of a user's throughput,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and

wherein said gateway intercepts the data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling unit.

25. (Currently Amended) An apparatus for use in a system wherein said apparatus, a terminal, and an application server are ~~coupled to~~ in a network, said apparatus comprising:

a packet receiving unit that is configured to receive a packet addressed at the IP level from the terminal to the application server; and

a transport level window size controller that is configured to control the transport level window size of the packet by modifying the transport level window size in accordance with the source IP address of the packet received by said packet receiving unit,

wherein the terminal, said apparatus, and the application server have different IP addresses, and

wherein said apparatus receives, using said packet receiving unit, the packet addressed at the IP level from the terminal to the application server, and controls, using said transport level window size controller, the transport level window size of the packet.

26. (Previously Presented) An apparatus according to Claim 25, wherein said transport level window size controller controls the transport level window size of the packet in accordance with the source IP address of the packet by reducing the transport level window size in response to bandwidth usage associated with the source IP address exceeding a threshold.

27. (Currently Amended) A method comprising:

receiving by a gateway for use in a system wherein a source apparatus, the gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, of a packet addressed at the IP level from the destination apparatus to the source apparatus; and

controlling by the gateway of the transport level window size of the packet received in said receiving step in accordance with bandwidth usage associated with the destination apparatus.

wherein the source apparatus, the gateway, and the destination apparatus have different IP addresses, and wherein the packet received in said receiving step has, as its source IP address, the IP address of the destination apparatus, and has, as its destination IP address, the IP address of the source apparatus.

28. (Previously Presented) A method according to Claim 27, wherein the bandwidth usage is measured as an amount of data sent to the destination apparatus per unit of time.

29. (Previously Presented) A method according to Claim 28, wherein the unit of time is a 24 hour period.

30. (Previously Presented) A method according to Claim 28, wherein the unit of time is a plurality of 24 hour periods.

31. (Previously Presented) A method according to Claim 27, wherein the bandwidth usage is expressed as an average throughput.

32. (Previously Presented) A method according to Claim 27, wherein the bandwidth usage is determined using a leaky bucket analysis.

33. (Currently Amended) A method comprising:

determining a number of TCP connections that are open; and

controlling, by a gateway for use in a system wherein a source apparatus, the gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, of throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with **[[a]]** the determination of the number of TCP connections that are open,

wherein the source apparatus, the gateway, and the destination apparatus have different IP addresses.

34. (Currently Amended) A method comprising:

controlling by a gateway for use in a system wherein a source apparatus, the gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, of throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of a user's throughput,

wherein the source apparatus, the gateway, and the destination apparatus have different IP addresses, and

wherein the gateway intercepts data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same.

35. (Currently Amended) A method comprising:

receiving by an apparatus on a network **[[**to**]]** in which the apparatus, a terminal, and an application server are ~~coupled~~ present of a packet addressed at the IP level from the terminal to the application server; and

controlling by the apparatus of the transport level window size of the packet received in said receiving step by modifying the transport level window size in accordance with the source IP address of the packet,

wherein the terminal, the apparatus, and the application server have different IP addresses, and

wherein the apparatus receives, in said receiving step, the packet addressed at the IP level from the terminal to the application server, and controls, in said controlling step, the transport level window size of the packet.

36. (Previously Presented) A method according to Claim 35, wherein said controlling step controls the transport level window size of the packet in accordance with the source IP address of the packet by reducing the transport level window size in response to bandwidth usage associated with the source IP address exceeding a threshold.

37. (Currently Amended) A gateway according to Claim 18, wherein ~~the unit of time is a 24 hour period~~ said transport level window size controlling unit modifies the TCP window size field of the packet.

38. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

a throughput controlling unit that is configured to control throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of the throughput,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and

wherein said gateway intercepts data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling unit.

39. (Currently Amended) A method comprising:

controlling, by a gateway for use in a system wherein a source apparatus, the gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, of throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of the throughput,

wherein the source apparatus, the gateway, and the destination apparatus have different IP addresses, and

wherein the gateway intercepts data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same in said controlling step.

40. (Withdrawn) An apparatus comprising:

packet prioritizing means for prioritizing transport level packets for transmission wherein at least one of the following conditions is satisfied:

(a) transport level packets containing real time traffic are assigned a higher priority for transmission than transport level packets containing broadcast traffic;

(b) transport level packets containing broadcast traffic are assigned a higher priority for transmission than transport level packets containing interactive TCP traffic;

(c) transport level packets containing interactive TCP traffic are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic; and

(d) transport level packets that are UDP packets are assigned a higher priority for transmission than transport level packets containing bulk TCP traffic.

41. (Withdrawn) An apparatus according to Claim 40, wherein condition (a) is satisfied.

42. (Withdrawn) An apparatus according to Claim 40, wherein condition (b) is satisfied.

43. (Withdrawn) An apparatus according to Claim 40, wherein condition (c) is satisfied.

44. (Withdrawn) An apparatus according to Claim 40, wherein condition (d) is satisfied.

45. (Withdrawn) An apparatus according to Claim 40, wherein any two of conditions (a) through (d) are satisfied.

46. (Withdrawn) An apparatus according to Claim 40, wherein all of conditions (a) through (d) are satisfied.

47. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

packet receiving means for receiving a packet addressed at the IP level from the destination apparatus to the source apparatus; and

transport level window size controlling means for controlling the transport level window size of the packet received by said packet receiving means in accordance with bandwidth usage associated with the destination apparatus,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and wherein the packet received by said packet receiving means of said gateway has, as its source IP address, the IP address of the destination apparatus, and has, as its destination IP address, the IP address of the source apparatus.

48. (Previously Presented) A gateway according to Claim 47, wherein the bandwidth usage is measured as an amount of data sent to the destination apparatus per unit of time.

49. (Previously Presented) A gateway according to Claim 48, wherein the unit of time is a 24 hour period.

50. (Previously Presented) A gateway according to Claim 48, wherein the unit of time is a plurality of 24 hour periods.

51. (Previously Presented) A gateway according to Claim 47, wherein the bandwidth usage is expressed as an average throughput.

52. (Previously Presented) A gateway according to Claim 47, wherein the bandwidth usage is determined using a leaky bucket analysis.

53. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

throughput controlling means for determining a number of TCP connections that are open and for controlling throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with **[[a]]** the determination of the number of TCP connections that are open,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses.

54. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

throughput controlling means for controlling throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of a user's throughput,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and

wherein said gateway intercepts data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling means.

55. (Currently Amended) An apparatus for use in a system wherein said apparatus, a terminal, and an application server are ~~coupled to~~ in a network, said apparatus comprising:

packet receiving means for receiving a packet addressed at the IP level from the terminal to the application server; and

transport level window size controlling means for controlling the transport level window size of the packet by modifying the transport level window size in

accordance with the source IP address of the packet received by said packet receiving unit,

wherein the terminal, said apparatus, and the application server have different IP addresses, and

wherein said apparatus receives, using said packet receiving means, the packet addressed at the IP level from the terminal to the application server, and controls, using said transport level window size controlling means, the transport level window size of the packet.

56. (Previously Presented) An apparatus according to Claim 55, wherein said transport level window size controlling means controls the transport level window size of the packet in accordance with the source IP address of the packet by reducing the transport level window size in response to bandwidth usage associated with the source IP address exceeding a threshold.

57. (Currently Amended) A gateway according to Claim 48, wherein ~~the unit of time is a 24 hour period~~ said transport level window size controlling means modifies the TCP window size field of the packet.

58. (Currently Amended) A gateway for use in a system wherein a source apparatus, said gateway, and a destination apparatus are ~~coupled to~~ in a TCP/IP network, said gateway comprising:

throughput controlling means for controlling throughput of data, sent through the TCP/IP network from the source apparatus addressed to the destination apparatus, ~~through the TCP/IP network~~ in accordance with a leaky bucket analysis of the throughput,

wherein the source apparatus, said gateway, and the destination apparatus have different IP addresses, and

wherein said gateway intercepts data sent from the source apparatus that is addressed to the destination apparatus, to control the throughput of the same using said throughput controlling means.